

Sr. No. : 10005
Name of the course : B.Sc. (H) Food Technology (NEP-UGCF)
Name of the paper : Nutraceuticals and Functional Foods
Semester : VII ,DSE
Unique paper code : 2203030015
Duration : 2 hours
Maximum marks : 60 marks

INSTRUCTIONS FOR CANDIDATES

1. Attempt any four questions
2. All parts of the question should be attempted together
3. Question No.1 is compulsory
4. All questions carry equal marks

Q1. Describe briefly (*Any six*):

(6x2.5=15)

- a) Functional Ingredients
- b) Phytochemicals
- c) Resistant Starch
- d) Conjugated Linoleic Acid (CLA)
- e) Probiotic Strains
- f) Antioxidants
- g) Dietary Supplements

Q2. Justify the following statements with suitable examples

(5x3=15)

- a) Market trends indicate a rapid growth in the nutraceutical sector in India.
- b) Nutraceuticals support immune enhancement and mood regulation.
- c) All functional foods are not nutraceuticals, but all nutraceuticals can be functional.

Q3. Differentiate between the following: (*Any 3*)

(5x3=15)

- a) Conjugated Linoleic Acid and Omega-3 fatty acids
- b) Polyphenols and Phytosterols
- c) Fortified foods and Enriched foods
- d) Prebiotics and Synbiotics

Q4. a) Discuss in detail on the legal and regulatory frameworks governing nutraceuticals and functional foods in India.

(7)

b) Explain the potential health benefits and mechanisms of action of functional foods in hypertension and diabetes management.

(8)

Q5 a) Explain the stability factors influencing nutraceuticals during processing and storage. (7)

b) Discuss milk and milk-based functional products in human nutrition. Give examples and their bioactive compounds.

(8)